IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Appl. No. : 10/556,009
Applicant(s): Johannes Petrus Maria Ansems, et al.
Filed: November 8, 2005
TC/A.U.: 2800/2879
Examiner: Thomas A. Hollweg
Atty. Docket: NL030699US1
Confirmation No.: 4549
Title: METAL HALIDE LAMP AND VEHICLE HEADLAMP

APPEAL BRIEF

Honorable Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In connection with the Notice of Appeal dated March 8, 2010, and the Notice of Panel Decision from Pre-Appeal Brief Review dated July 15, 2010, Applicants provide the following Appeal Brief in the above-captioned application.

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TABLE OF CASES

1. *In re Paulsen,* 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994)

2. *In re Spada,* 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990)

3. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.,* 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983)

4. *Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.,* 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992)

5. *Scripps Clinic & Res. Found. v. Genentech, Inc.,* 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991)

1. Real Party in Interest

The real party in interest as assignee of the entire right and title to the invention described in the present application is Koninklijke Philips Electronics, N.V., having a principal place of business at Groenewoudseweg, 1Eindhoven, NL 5621 BA .

2. Related Appeals and Interferences

There are no known related appeals or interferences at this time.

3. Status of the Claims

Claims 1 and 3-12 are pending in this application. Claim 2 has been canceled. Claims 1 and 3-12 are the subject of the present Appeal. Claims 1 and 3-12 are finally rejected, and are duplicated in the Appendix.

4. Status of the Amendments

A final Office Action on the merits was mailed on January 14, 2010 (hereinafter "Final Office Action"). A Notice of Appeal and Pre-Appeal Brief Request for Review were filed March 8, 2010. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on July 15, 2010, in which the Panel determined that Applicants proceed to the Board of Patent Appeals and Interference with regard to claims 1 and 3-12. There are no pending amendments with respect to this application.

5. Summary of the Claimed Subject Matter[1]

In accordance with an embodiment, as recited in claim 1, a metal halide lamp (FIG. 1) includes a cylindrically-shaped discharge vessel (FIG. 1, discharge vessel 3; FIG. 3A, discharge vessel 23; FIG. 4A, discharge vessel 33; p. 5, line 32 – p. 6, line 21; p. 7, lines 9-19; p. 8, lines 13-21; p. 8, lines 29–30; p. 9, line 27 – p. 10, line 2) along a

[1] In the description to follow, citations to various reference numerals, drawings and corresponding text in the specification are provided solely to comply with Patent Office Rules. It is emphasized that these reference numerals, drawings and text are representative in nature, and in not any way limiting of the true scope of the claims. It would therefore be improper to import any meaning into any of the claims simply on the basis of illustrative language that is provided here only under obligation to satisfy Patent Office rules for maintaining an Appeal.

longitudinal axis (FIG. 1, longitudinal axis 10), said discharge vessel having a ceramic wall (FIG. 1, ceramic wall 43; p. 5, line 33 – p. 6, line 1) which encloses a discharge space (FIG. 1, discharge space 42) comprising Xe and an ionizable filling (p. 5, line 33 – p. 6, line 3), and an outer bulb (FIG. 1, outer bulb 1; FIG. 3A, outer bulb 21; FIG. 4A, outer bulb 31; p. 5, lines 33-34; p. 6, lines 15-16; p. 7, line 9 – p. 8, line 3; p. 8, line 29 – p. 9, line 18) surrounding the discharge vessel along the longitudinal axis, a portion of a surface of the outer bulb facing away from the discharge vessel being shaped as a negative lens (FIG. 3A, portions 25, 26; p. 7, lines 9-23; FIG. 4A, portions 35, 36; p. 8, line 29 – p. 9, line 6), the discharge vessel and the outer bulb defining a circumferential space therebetween (FIG. 1, space between discharge vessel 3 and bulb 1; FIG. 3A, space between discharge vessel 23 and bulb 21; FIG. 4A, space between discharge vessel 33 and bulb 31), wherein the portion with respect to the longitudinal axis encompasses a segment of the outer bulb with a segment angle α in a range between $20° \leq \alpha \leq 110°$ (FIG. 3A; p. 7, lines 23-27; 6-10; FIG. 4A; p. 9, lines 6-10). (Kindly refer to FIG. 5; p. 10, lines 18-27, and p. 2, line 23 – p. 4, line 7, for further details.)

6. Grounds of Rejection to be Reviewed on Appeal

The issues in the present matter are whether:

I. Claims 1, 5-7 and 9-12 are properly rejected under 35 U.S.C. § 102(b) as being anticipated by TIESLER-WITTIG (U.S. Patent Application Publication 2003/0031026);

II. Claims 3 and 4 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over TIESLER-WITTIG in view of itself; and

III. Claims 8 is properly rejected under 35 U.S.C. § 103(a) as being unpatentable over TIESLER-WITTIG in view of VITT *et al.* (U.S. Patent Application Publication 2004/0156984).

7. Argument

In this portion of the Appeal Brief, arguments are provided. Notably, wherever applicable, Applicants maintain previous arguments for patentability provided in responses to Office Actions.

I. Rejection under 35 U.S.C. § 102(b)

Claims 1, 5-7 and 9-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by TIESLER-WITTIG (U.S. Patent Application Publication 2003/0031026).

A. Legal Standards

Applicants rely on at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen,* 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada,* 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); *W.L. Gore & Assoc., Inc. v. Garlock, Inc.,* 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.,* 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.,* 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

B. Final Office Action

1. Claim 1

Claim 1 is drawn to a metal halide lamp and recites the following:

> a cylindrically shaped discharge vessel along a longitudinal axis, said discharge vessel having a ceramic wall which encloses a discharge

> space comprising Xe and an ionizable filling, and
>
> an outer bulb surrounding the discharge vessel along the longitudinal axis, a portion of a surface of the outer bulb facing away from the discharge vessel being shaped as a negative lens, the discharge vessel and the outer bulb defining a circumferential space therebetween, wherein the portion with respect to the longitudinal axis encompasses a segment of the outer bulb with a segment angle a in a range between $20° \leq \alpha \leq 110°$.

The Final Office Action asserts that the "cylindrically shaped discharge vessel" is disclosed by discharge vessel 16 and that the "outer bulb" is disclosed by outer bulb 20 of TIESLER-WITTIG. *See* Final Office Action, p. 2 (citing FIGs. 1, 1a, 2, 2a). The Final Office Action further asserts that the "the discharge vessel and the outer bulb defining a circumferential space therebetween" is disclosed by an alleged space between the discharge vessel 16 and the outer bulb 20. *See* Final Office Action, pp. 2, 6 (citing para. [0033]; FIGs. 1a, 2, 2a). More particularly, the Final Office Action states as follows:

> Applicant argues that the prior-art reference, Tiesler-Witting, does not disclose the newly added claim limitation, where the discharge vessel and the outer bulb define a circumferential space therebetween. Although this feature is only clearly shown in figures 1, 2 and 2a, it is described in the specification, paragraph [0033], stating the '<u>bulb is a glass tube with an inner diameter which is only slightly greater than the outer diameter of the discharge vessel 16</u>.' The slight difference leaves a circumferential space between the discharge vessel and the outer bulb."

See Final Office Action, p. 6 (emphasis added).

Applicants respectfully disagree and submit that there is no disclosure of a circumferential space between the discharge vessel 16 and the outer bulb 20. Rather, lenses 30 abut the discharge vessel 16 and the outer bulb 20, as shown plainly in FIG. 1, such that there can be <u>no circumferential space</u> between the discharge vessel 16 and the outer bulb 20. While TIESLER-WITTIG discloses generally that the inner diameter of the outer bulb 20 is "slightly greater" than outer diameter of the of the discharge vessel 16, this does not equate to specific disclosure of a circumferential space between the

discharge vessel 16 and the outer bulb 20. In other words, the lenses 30 occupy any space which may otherwise occur, and thus preclude the existence of a circumferential space between the discharge vessel 16 and the outer bulb 20, as recited in claim 1.

Further, Applicants disagree with the assertion that Figs. 1a, 2 and 2a of TIESLER-WITTIG show a circumferential space between the discharge vessel 16 and the outer bulb 20. FIG. 1a of TIESLER-WITTIG shows the same side elevation view as FIG. 1, except with the outer bulb 20 rotated 90 degrees, such that the lenses 30 (which are still disposed between discharge vessel 16 and the outer bulb 20) are now "in front of" the discharge vessel 16. *See, e.g.,* para. [0038]. That is, the lenses 30 still abut the discharge vessel 16 and the outer bulb 20, as shown in FIG. 1, except the viewpoint of FIG. 1a (looking through the top of the lenses 30) obscures this fact.

FIGs. 2 and 2a support Applicants' interpretation of FIGs. 1 and 1a, showing the 90 degree rotation of the outer bulb 20 and the lenses 30. FIGs. 2 and 2a clearly show no space between the discharge vessel 16 and the outer bulb 20 in both positions. In particular, the outer bulb 20/lenses 30 clearly abut the discharge vessel 16, which is indicated by a ring (assertedly showing "a ceramic wall which encloses a discharge space comprising Xe and an ionizable filling," as recited in claim 1). Similarly, in FIG. 3 of TIESLER-WITTIG, the discharge vessel 16 is shown enveloped by and in contact with the lenses 30.

Consistently, the written description accompanying FIGs. 2 and 2a never mentions a circumferential space between the discharge vessel 16 and the outer bulb 20. FIGs. 2 and 2a are described in paragraphs [0039] to [0040] as follows:

> [0039] The second position of the outer bulb 20, in which the lenses 30 are arranged laterally of the discharge vessel 16 to the right and to the left, is also visible in FIG. 2a. The lamp base 12 with the retaining grooves for an exact positioning in a holder is still in the same position as in FIG. 2. The outer bulb 20 has been rotated through 90° with respect to FIG. 2 through rotation of the rotary ring (not shown) inside the lamp base 12.
>
> [0040] The lamp 10 thus has the lenses 30 as the optically active elements, which are active each in an approximately 90° wide angular region in the

> first position, above and below the discharge 17, so that the discharge 17 appears to be shifted when viewed from these directions. Viewed from the regions to the right and the left, laterally of the discharge 17, also 90° wide each, the lenses 30 are not active, so that the discharge 17 is visible in its actual location. In the second position, the picture is rotated through 90°, so that now the discharge 17 is directly visible in the regions above and below the discharge, but viewed laterally only through the lenses 30, so that it seems to be shifted.

Lastly, claim 1 recites that the discharge vessel is "cylindrically shaped." In comparison, the discharge vessel 16 disclosed by TIESLER –WITTIG "is oval in longitudinal sectional view." *See, e.g.*, FIGs. 1 and 1a; para. [0033].

Accordingly, TIESLER -WITTIG does not disclose each and every element of claim 1. As stated above, to show anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991). Therefore, Applicants respectfully submit that the rejection of claim 1 under 35 U.S.C. § 102(b) should be withdrawn.

C. Rejection Improper

For at least the reasons set forth above, Applicants respectfully submit that anticipation has not been established because TIESLER-WITTIG does not disclose each and every element of claim 1, and thus claim 1 is patentable over the applied art. In addition, Applicants respectfully submit that claims 5-7 and 9-12 are patentable over the applied art at least because they depend, directly or indirectly, from claim 1, which has been shown to be allowable, and further in view of their additional subject matter.

II. Rejection under 35 U.S.C. § 103(a)

Claims 3 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over TIESLER -WITTIG in view of itself. Because claims 3 and 4 rejected for obviousness depend from claim 1, they are patentable for at least the same reasons discussed above, and in view of their additional subject matter.

III. Rejection under 35 U.S.C. § 103(a)

Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over TIESLER -WITTIG in view of VITT *et al.* Applicants submit that VITT *et al.* does not cure the deficiencies of TIESLER –WITTIG discussed above with respect to claim 1, from which claim 8 depends. Further, while Applicants do not concede the propriety of the combination of references, because claim 8 rejected for obviousness depends from claim 1, it is patentable for at least the same reasons discussed above, and in view of its additional subject matter.

8. Conclusion

In view the foregoing, Applicants respectfully request that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
Philips Electronics North America Corp.

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APPENDIX

Claims on Appeal

1. A metal halide lamp, comprising:

a cylindrically-shaped discharge vessel along a longitudinal axis, said discharge vessel having a ceramic wall which encloses a discharge space comprising Xe and an ionizable filling, and

an outer bulb surrounding the discharge vessel along the longitudinal axis, a portion of a surface of the outer bulb facing away from the discharge vessel being shaped as a negative lens, the discharge vessel and the outer bulb defining a circumferential space therebetween, wherein the portion with respect to the longitudinal axis encompasses a segment of the outer bulb with a segment angle α in a range between $20° \leq \alpha \leq 110°$.

3. The metal halide lamp of claim 1, wherein the portion forming the negative lens comprises a flat surface.

4. The metal halide lamp of claim 1, wherein the portion forming the negative lens comprises a curved surface which is less curved than a curvature of a remainder of the outer bulb.

5. The metal halide lamp of claim 1, wherein a first portion and a second portion of the surface of the outer bulb facing away from the discharge vessel are shaped as negative lenses.

6. The metal halide lamp of claim 5, wherein the first portion and the second portion are at opposite sides of the outer bulb.

7. The metal halide lamp of claim 5, wherein a transition between the first portion and a remainder of the outer bulb defines a first plane,

wherein a transition between the second portion and the remainder of the outer bulb defines a second plane, and

wherein the first plane and the second plane make an angle with respect to each other which is equal to or less than 10°.

8. The metal halide lamp of claim 5, wherein at least one of the portions forming the negative lenses has anti-reflective properties.

9. A vehicle headlamp comprising a reflector and the metal halide lamp of claim 1.

10. The vehicle headlamp of claim 9, wherein the portion forming the negative lens is oriented in the direction of portions of the reflector creating a cut-off between an illuminated area and a glare area according to requirements for automotive passing beam patterns.

11. The metal halide lamp of claim 1, wherein the segment angle α is in a range between $60° \leq \alpha \leq 90°$.

12. The metal halide lamp of claim 1, wherein the segment angle α is in a range between $30° \leq \alpha \leq 60°$.

APPENDIX

Evidence (None)

APPENDIX

Related Proceedings (None)